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DES MOINES, IA 50309-2721

EXAMINER

TREMBLAY, MARK STEPHEN

| | |
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| ART UNIT | PAPER NUMBER |
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2827

DATE MAILED: 08/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/753,863

Applicant(s)

MELICK ET AL.

Examiner

Mark Tremblay

Art Unit

2876

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 May 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-12,14-16 and 18-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-12,14-16 and 18-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Applicant: Melick et al.

Filing date: 1/3/2001

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 3-12, 14-16 and 18-20, are rejected under 35 U.S.C. § 103 as being unpatentable over U.S. Patent #5,579,537 to Takahisa ("Takahisa" hereinafter), figure 13 and description thereof. Takahisa disclosed the use of scanners, but did not disclose a scanner which scans at 100 scans per second or greater. Applicant has admitted that such scanners existed commercially at the time the invention was made. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use high scan rate scanners in Takahisa because high scan rate scanners existed commercially at the time the invention was made as admitted by Applicant. Since Takahisa did not specify which type of scanner to use, it would have been obvious to use all commercially available scanners, including high rate scanners. If a scanner did not work in the Takahisa invention, it would be obvious to substitute another commercially available scanner, until one was found that worked.

Alternatively, Examiner finds that persons having ordinary skill in the art would recognize the conflict between a low scan rate scanner and the refresh rate of computer monitors. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to use a high rate scanner in the Takahisa invention because known monitor refresh rates were typically from 60 to 85 cycles per second. If a scanner scanned at or near these rates, it would be unable to get a complete bar code scan before the display changed. This would be obvious from

the specifications of the monitor and the specifications of commercial bar code readers.

Re claims 4-8, 11-12, 15, and 19-20, Official Notice is taken that the Internet is old and well known in the art. See In Re Malcolm 1942 C.D.589:543 O.G. 440. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to substitute transmission over the airwaves in Takahisa for transmission using various components of the Internet because the Internet became a standard for disseminating information.

Remarks

Had Applicant invented the high scan rate bar code scanner, Examiner would be writing reasons for allowance. Currently, there is no dispute in the instant applicaiton that others invented them. Why would other artisans invent bar code scanners that could scan 100, 400, 800, or over a 1000 times per second? The Intermec 1800 plus hand held scanner, of record, scans at up to 400 per second. Clearly, a person could not wave the wand over 400 different bar codes in one second, nor are there many practical scenarios in which one could imagine doing so. Even 10 different bar codes per second with a hand-held scanner seems to be pushing the limits of human hand-eye coordination. A typical reaction time for a human is .1 seconds. That is the time that it takes for a human to receive a stimulus, such as a beep, and perform some reaction to it.

Without dragging out the question to great length, there are two main answers. The first is redundancy: to read the code more than once to make sure it is read correctly. But even in .1 seconds, the Intermec 1800 would read a bar code 40 times, suggesting that there is more to it than redundancy. The second answer is that a bar code often appears correctly oriented, focussed and distanced from the scanner for a very limited time window, when an operator is trying to move the scanner quickly between different objects. In essence, the scanner should freeze the action to get a whole bar code read. The bar code reader must read a bar code that may be visible to the bar code reader for only a brief instant. The better it does this, the higher its performance in non-ideal circumstances.

With this established, the Examiner has two further basic observations to make. First, that it is obvious to create an image on a computer screen of anything a person can see in the real world. In fact, it is more than merely obvious; it is what people do, and what they have done for

the last decade or more. If millions of people with millions of computers and millions of imagers see millions of bar codes on real world objects, inevitably, those bar codes will appear on computer monitors for numerous reasons. In that respect, the Examiner is not special in finding bar code images on his computer terminal years ago.

5 The second observation is that, wherever people see bar codes, and have a bar code reader, they will often point the reader at the bar code to read it. This is simply what bar code readers are made for.

10 With these two observations in mind, it is impossible for the Examiner to see the claims in any other way than as an obvious result of the development of two technologies (the bar code scanner and the computer monitor) to which Applicant has not directly contributed in making the instant disclosure. Examiner firmly believes that Takahisa provides sufficient evidence to sustain this perspective.

15 The Examiner initially made an enablement rejection in the first Office Action. Although it was subsequently withdrawn, and the Applicant continues to argue the point. Examiner feels compelled to enter the following observations into the record. Examiner has participated since February 2003 in a pilot program for PTO involving the Electronic File Wrapper, where scanned images of patent applications are used to prosecute patent applications. The instant application, including all papers, have been scanned into a PTO database, and is now being used by Examiner for prosecution. As a result, the Welch Allyn Scanteam 3400 Series User's Guide is now an
20 image on the Examiner's computer. While reviewing this reference for the current Office Action, Examiner noticed that the "Sample Bar Codes" on the last page of the reference now are available to Examiner as images of the bar codes on the Examiner's workstation display (the NEC Multisync LCD 2110) rather than on paper (providing another example of a printed bar code becoming an imaged bar code displayed on a computer screen). On impulse, the Examiner picked
25 up the Welch Allyn Scanteam 3400 CCD scanner attached to the Examiner's workstation, and attempted to read the bar codes. Examiner found that several of the bar codes read properly. The following is the unaltered output from the Examiner's 3400 scanner, which is connected in a wedge configuration with the Examiner's keyboard:" 0013557900 TEST-SHEET
1234567890 11223344 CODE 128

00123457 012345678905 9780330290951 ". Examiner attempted to read the bar codes in order from top to bottom, and left to right. The Examiner found that only the UPC-A with 5 digit addenda and the 3400/LC/UG Rev E bar codes would not scan. Examiner notes that the scan quality was not very good. Examiner also notes that the UPC-E code
5 consistently returned a "7" as the final character, which was not shown as a character in the plain text. Examiner would have to research further to find out if this is an error, or a check-sum character passed to the output, but this would appear to be an insignificant point. The Examiner also notes that there have been no changes to the Examiner's workstation hardware since the date of the last Office Action, or even the first Office Action.

10 Again, as mentioned in the previous Office Action, it is not the Examiner's job to experiment with PTO equipment to find the optimal hardware and software to accomplish a particular task. In fact, Examiner is enjoined by the CIO's office from altering either the hardware or software provided to Examiner. At this point, it is an open question whether the Examiner's initial failure to read bar codes from the screen was a result of scan-rate or the resolution of the
15 image containing the bar code, or some other factor. In any case, the enablement rejection has been withdrawn.

Response to Arguments

Applicant argues that the skilled artisan would not use a high scan rate scanner, but rather a "typical bar code reader which has a low scan rate of 30 to 100 scans per second" or a scanner
20 which is "synchronized" with an LCD. The Examiner respectfully disagrees. Applicant admitted that high scan rate scanners were commercially available at the time the invention was made. As artisans were buying and selling these scanners, it follows that they were being used. Examiner cannot agree that the skilled artisan would use only low scan rate bar code scanners for two reasons. First, high scan rate scanners generally perform better, as is well understood in the art.
25 Second, if the artisan had experienced any problem with one scanner, the artisan would experiment with other commercially available scanners, until one which could perform the job laid out in Takahisa. Since Applicant argues that only high scan rate scanners would work, Examiner counters that, assuming that this is true, then the experimenting artisan would conclude their experiments to find a suitable scanner with a high scan rate bar code scanner. Such

experimentation would need only cover commercially available scanners, and would not require the artisan to invent anything new.

Applicant asserts that the "Takahisa reference merely discloses the use of conventional bar code readers which the Examiner has found do not work." It should be clear at this point that Examiner disagrees with the characterization of Takahisa as disclosing "conventional" readers in the sense that Applicant wishes to construe it-- limited to low scan rate scanners. Applicant is invited to point out the passage in Takahisa that describes low scan rate scanners. In the absence of such a passage, all commercially available scanners are relevant. As to the conclusion of the statement, Examiner put the issue to rest by withdrawing the rejection in the last Office Action, and with the remarks in this Office Action.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Voice

Inquiries for the Examiner should be directed to Mark Tremblay at (703) 305-5176. The Examiner's regular office hours are 10:30 am to 7:00 pm EST Monday to Friday. Voice mail is available. If Applicant has trouble contacting the Examiner, the Supervisory Patent Examiner, Michael Lee, can be reached on (703) 305-3503. Technical questions and comments concerning PTO procedures may be directed to the Patent Assistance Center hotline at 1-800-786-9199 or (703) 308-4357.


MARK TREMBLAY
PRIMARY EXAMINER

August 7, 2003